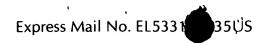
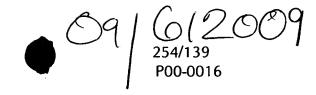
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ABSTRACT OF THE INVENTION

An automated semiconductor processing system has an indexer bay perpendicularly aligned with a process bay within a clean air enclosure. An indexer in the indexer bay provides stocking or storage for work in progress semiconductor wafers. Process chambers are located in the process bay. A process robot moves between the indexer bay and process bay to carry semi-conductor wafers to and from the process chambers. The process robot has a robot arm vertically moveable along a lift rail. Semiconductor wafers are carried offset from the robot arm, to better avoid contamination. The automated system is compact and requires less clean room floor space.